

Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary) Page 1 of 4		Attorney Docket No. 05247P004D	Application Number: Not Yet Assigned
. INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (use as many sheets as necessary)  Sheet 1 of 4		First Named Inventor:	Eric A. Holwitt
		Filing Date:	Concurrently Herewith

### U.S. PATENT DOCUMENTS

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		Number Code <sup>2</sup>	Kind (If known)			
	A1	5,484,707		Goldblum et al.	01/16/1996	
	A2	6,093,723		Miao et al.	07/25/2000	
	A3	6,096,556		Heinecke, Jay W.	08/01/2000	
	A4	6,113,324		Huber, Eduard	09/05/2000	
	A5	6,113,898		Anderson, Darrell R. et al.	09/05/2000	
	A6	6,200,978		Maw et al.	03/13/2001	

### FOREIGN PATENT DOCUMENTS

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				Group Art Unit	Not yet assigned
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[Signature]	C1	BURNEY et al., "The chemistry of DNA damage from nitric oxide and peroxynitrite", Mutation Res., 424:37-49, 1999	
	C2	BURNEY, S. et al., "DNA damage in deoxynucleosides and oligonucleotides treated with peroxynitrite", Chem. Res., Toxicol., 12:520, 1999	
	C3	BYUN, J. et al., "8-Nitro-2'-deoxyguanosine, a specific marker of oxidation by reactive nitrogen species, is generated by the myeloperoxidase-hydrogen peroxide-nitrate system of activated human phagocytes", Biochemistry, 38:2590-2600, 1999	
	C4	CHWANG, T. Ling et al., "Synthesis of nucleoside nitrates", J. Carbohydrates Nucleosides Nucleotides, 7(6): 405-431, 1980	
	C5	DIPLOCK, et al., "Functional food science and defence against reactive oxidative species", Brit. J. Nutrition 80 (Supp. 1):S77-S112, 1998	
	C6	DOUKI, Thierry et al., "An adduct between peroxynitrite and 2'-deoxyguanosine: 4,5-dihydro-5-hydroxy-4-(nitrosooxy)-2'-deoxyguanosine", Chem. Res. Toxicol., 9:3-7, 1996	
	C7	FUKUYAMA, et al., "Clinical evidence of peroxynitrite formation in chronic renal failure patients with septic shock", Free Radical Biol. & Med. 22:771-774, 1997	
	C8	HOLWITT, Joel, "The effect of peroxynitrite on DNA synthesis of 8-nitroguanine and a physical chemical study", Presented to the Intel International Science and Engineering Fair, May 5, 1999	
	C9	HOLWITT, Gregory, "The synthesis and detection of 8-nitroguanine in DNA", Presented to the Intel International Science and Engineering Fair, May 10, 2000	
	C10	HAUNG, Guang-Fu and TORRENCE, Paul F., "Nitration of pyrimidine bases and nucleotides by nitronium tetrafluoroborate, synthesis of 5-nitro-2'-deoxyuridine", Journal of Organic Chemistry, 42 (24) 3821-3824, 1977	
[Signature]	C11	HUGHES, "Relationships between nitric oxide, nitroxyl ion, nitrosonium cation and peroxynitrite." Biochim. Biophys. Acta 1411:263-272, 1999	

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[Signature]	C12	HURST AND LYMAR, "Toxicity of peroxynitrite and related reactive nitrogen species towards Escherichia coli", Chem. Res. Toxicol. 10:802-810, 1997	
	C13	JAYASENA, S.D., "Aptamers: An Engineering Class of Molecules That Rival Antibodies in Diagnostics", Clin. Chem. 45:1628-1650, 1999	
	C14	LIN, Weiei et al., "Study on DNA strand breaks induced by sodium nitroprusside, a nitric oxide donor, in vivo and in vitro", Mut. Research, 466:187-195, 2000	
	C15	LOVE, "Oxidative stress in neurological disease", Brain Pathol. 9:119-131, 1999	
	C16	OIKAWA, Shinji and KAWANISHI, Shosuke, "Site specific DNA damage at GGG sequence by oxidative stress may accelerate telomere shortening", FEBS Letters 453:365-368, 1999	
	C17	ROUTLEDGE, Michael N., "Mutations induced by reactive nitrogen oxide species in the supF forward mutation assay", Mutation Research 450, 95-105, 450	
	C18	SCHWEMMER, M., et al. "How urine analysis reflects oxidative stress-nitrotyrosine as a potential marker", Clin. Chim. Acta 297:207-216, 2000	
	C19	SPENCER, J.P.E. et al., "Base modification and Strand Breakage in Isolated Calf Thymus DNA and in DNA from Human Skin Epidermal Keratinocytes Exposed to Peroxynitrite or 3-Morpholinolinosyndnonimine," Chemical Research in Toxicology, 9 (1996), p1 152-1158	
	C20	TRETYAKOVA et al., "Peroxynitrite-induced DNA damage in the supF gene: correlation with the mutational spectrum", Mutation Res. 447:287-303, 2000	
	C21	TUO et al., "Importance of guanine nitration and hydroxylation in DNA in vitro and in vivo", Free Radical Biol. & Med. 29:147-155, 2000	
[Signature]	C22	YERMILOV, V., et al., "Formation of 8-nitroguanine in DNA treated with peroxynitrite in vitro and its rapid removal from DNA by depurination. "FEBS Letters, 376:207-210, 1995a	

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